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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/257,223	02/25/1999	LESLIE DEREK HUMPHREY	476-1733	1908

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[REDACTED] EXAMINER

GEORGE, KEITH M

[REDACTED] ART UNIT 2663
[REDACTED] PAPER NUMBER

DATE MAILED: 07/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/257,223	HUMPHREY, LESLIE DEREK
Examiner	Art Unit	
Keith M. George	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 25 February 1999.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-13 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 11 is/are allowed.
 6) Claim(s) 1-10, 12 and 13 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 25 February 1999 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.
 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____.
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) Other: _____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Great Britain on 27 February 1998. It is noted, however, that applicant has not filed a certified copy of the 9804303.7 application as required by 35 U.S.C. 119(b).

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "232" has been used to designate both an AAL2 multiplexer and a transaction protocol specific (TPS) transaction conveyance (TC) function. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: In figure 2, reference sign 223 does not appear. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to because figures 3-7 do not contain reference numbers that can be referred to in the specification. These figures should have reference numbers added and appropriate descriptions of each reference number should be included in the specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings filed on 25 February 1999 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draftperson's Patent Drawing Review," PTO-948. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities:

- a. Page 10, line 8 reads "carried in he mini-cell" and should read "carried in the mini-cell".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 2 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 2 recites the limitation "said digital communication service" in page 16, line 22. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 2 recites the limitation "the line" in page 16, line 23. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 6 recites the limitation "said first and second management system" in page 17, line 16. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

13. Claims 1, 7-9 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Achilleoudis.

14. Referring to claims 1, 7 and 12, Achilleoudis teaches a digital communication service as shown in figure 2 and also teaches the use of mini-cells based on Asynchronous Transfer Mode (ATM) (column 4, lines 35-39). These mini-cells are allocated for housekeeping, ranging, MAC-layer and payload (control and supervision) (column 4, lines 43-46).

15. Referring to claim 8, Achilleoudis teaches the method as applied to claim 7 above and also teaches that the amount of mini-cells allocated for housekeeping, ranging, MAC-layer and payload is adapted to the actual need, and can even be zero for some cell types (column 4, lines 43-47). Since the mini-cells can be used for payload, any type of data traffic can be sent over them, including packet voice traffic.

16. Referring to claim 9, Achilleoudis teaches the method as applied to claim 8 above and also teaches that the mini-cells are frame and byte oriented as shown in figure 3.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 2, 4-6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Achilleoudis in view of Deng.

19. Referring to claim 2, 6 and 13, Achilleoudis teaches a digital communication system and the use of mini-cells for control and supervision as shown in claim 1 above. Achilleoudis does not teach the use of modems to connect the two systems, a multiplexer or packet transaction means. Deng teaches a digital communication system comprising an ADSL Modem, Data Bus/Multiplexer and Switching Port Controllers (packet transaction means) in figures 4 and 5. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize the mini-cells as taught by Achilleoudis over the network taught by Deng. One of ordinary skill in the art would have been motivated to do this in order to facilitate an easy implementation of multiple services over a single communication network (Achilleoudis, column 4, line 48).

20. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Achilleoudis and Deng as applied to claim 2 above, and further in view of Deng. As applied to claim 2, Achilleoudis and Deng do not teach a connection to an ATM network. Deng teaches a WAN

protocol converter in figure 5 that can convert the protocol of data packets received from the wide area network from WAN protocols, such as frame relay or ATM protocol (column 7, lines 57-60). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to connect the network of Achilleoudis and Deng to an ATM network to provide WAN connectivity to the devices on the network.

21. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Achilleoudis and Deng as applied to claim 4 above, and further in view of Deng. As applied to claim 4, Achilleoudis and Deng do not teach a twisted conductor pair to connect the two devices. Deng teaches a twisted conductor pair to connect the devices as shown in figures 4 and 5. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to connect the two devices in the communication network of Achilleoudis and Deng with a twisted conductor pair as taught by Deng since an ADSL modem transmits and receives digital data packets on twisted pair (Deng, column 5, lines 2-3).

22. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Achilleoudis and Deng as applied to claims 2 above, and further in view of Czerwic. Achilleoudis and Deng teach the digital communication system as shown above but do not teach incorporating scrambling and descrambling means into the system. Czerwic teaches an ATM system including a scrambler before a Reed Solomon encoder and a descrambler after the Reed Solomon decoder (column 18, lines 4-6). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to add the scrambler/descrambler of Czerwic to the digital communication system of Achilleoudis and Deng in order to randomize the data (Czerwic, column 18, lines 4-6).

23. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Achilleoudis as applied to claim 9 above, and further in view of Czerwiec. Achilleoudis teaches the method as shown above but does not teach scrambling the data over the line. Czerwiec teaches an ATM system includes a scrambler before a Reed Solomon encoder and a descrambler after the Reed Solomon decoder (column 18, lines 4-6). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to add the scrambler/descrambler of Czerwiec to the method of Achilleoudis in order to randomize the data (Czerwiec, column 18, lines 4-6).

Allowable Subject Matter

24. Claim 11 is allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith M. George whose telephone number is 703-305-6531. The examiner can normally be reached on M-Th 7:30-5:00, Every other F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 703-308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.


kmg
July 9, 2002



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